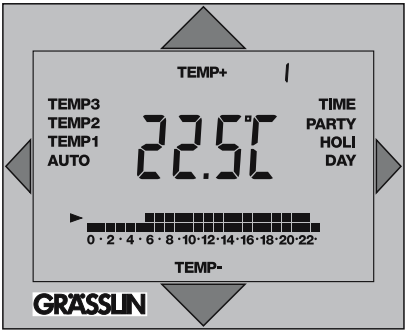
GRÄSSLIN

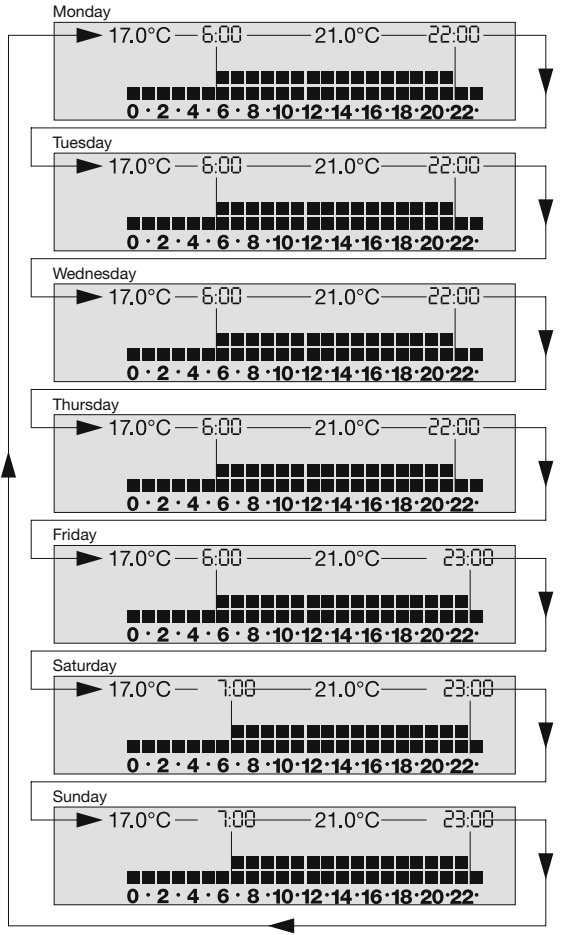


GB Operating instructions

famoso
2000

Shaded grey area is designed for end-user instruction

Example: Factory program P1 - weekly overview



With its various programs and setting facilities, the famoso 2000 digital chronostat always ensures a comfortable room temperature.
The chronostat contains the following:

4 factory programmes

The factory programmes are oriented to the calendar week and have been adapted to suit different ways of life.

4 user-defined programmes

The 4 factory programmes can be edited to suit your specific requirements.

AUTOmatic mode

The chronostat operates in accordance with one of the four factory programmes or the user-defined programme in this mode.

3 continuous temperature modes

A single temperature is assigned to each of the continuous temperature modes. The programmed temperature is maintained until another mode is selected.

HOLIDAY mode

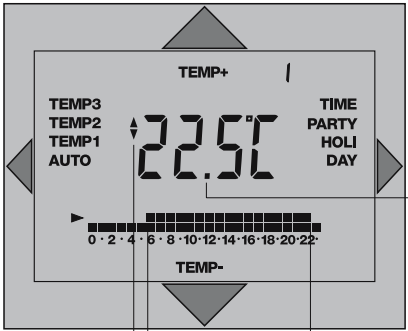
This mode remains active for the specified number of days and then returns to the previously selected programme.

PARTY mode

Switches to temperature level 3 (factory setting: 21 °C) for a three-hour period.

The battery-powered chronostat can be removed from its stand and programmed easily on a table or from the comfort of an armchair. Simply replace the chronostat on its stand when you have finished programming (refer to Page 5).

When entering the time for a change in temperature, please remember that the heating system requires a certain amount of time to adjust the temperature to the set value.


TEMP+
TEMP3
TEMP2
TEMP1
AUTO
22.5°C
TIME
PARTY
HOLI
DAY
0 · 2 · 4 · 6 · 8 · 10 · 12 · 14 · 16 · 18 · 20 · 22 ·
TEMP-

Your chronostat has been installed and the installation technician has programmed the programme of your choice to suit your specific requirements. Proceed as follows if you wish to change the temperature temporarily:

The display shows the current room temperature

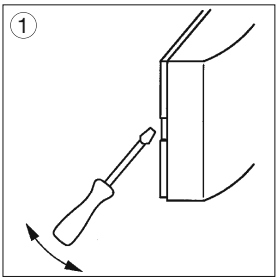
Press the button on the display once and read the programmed temperature

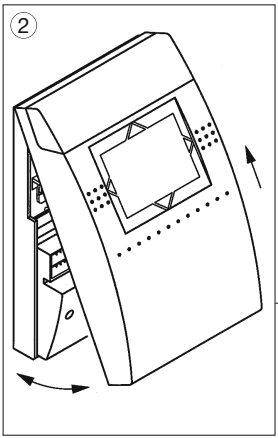
Display for the set room temperature

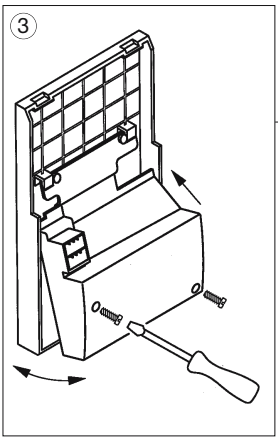
Press the button on the display and enter the desired temperature

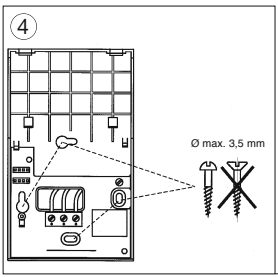
Times for the change in temperature

The temperature specified by the programme is reactivated with the next temperature change.


1


2


3


4
Ø max. 3,5 mm

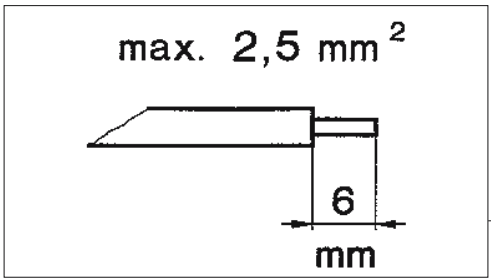
- The chronostat must be fitted / installed with an appropriate amount of care by a suitably qualified electrician / technician.
- Switch the heating system off before commencing installation!
- Check and make sure that the connecting wires are not live.

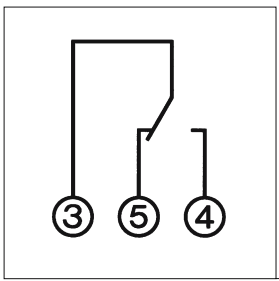
Refer to Page 28 for the system settings

- Lift the chronostat off the stand ①

- Undo the screws
- Remove the protective housing
- Be careful not to damage the clips

- Guide the connecting leads through the cut-outs in the stand
- Mount the stand on a firm surface or a flush type box


max. 2,5 mm 2
6
mm


③
⑤
④

- The chronostat **must** be fitted / installed with an appropriate amount of care by a suitably qualified electrician / technician.

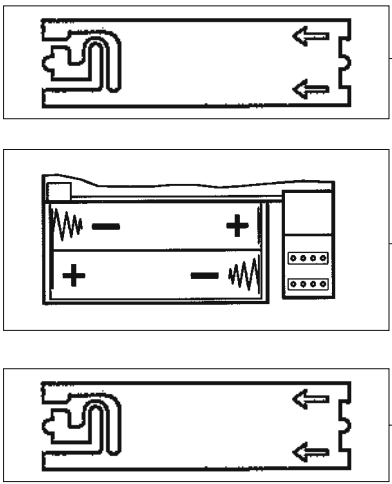
- Strip the ends of the connecting wires carefully and connect up as shown on the circuit diagram

- Contacts 3 - 4 closed =
heating / coolingmode

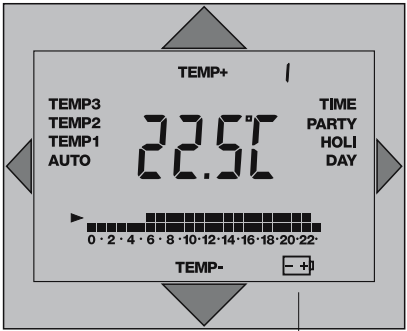
- Replace the protective housing

- Be careful not to damage the clips

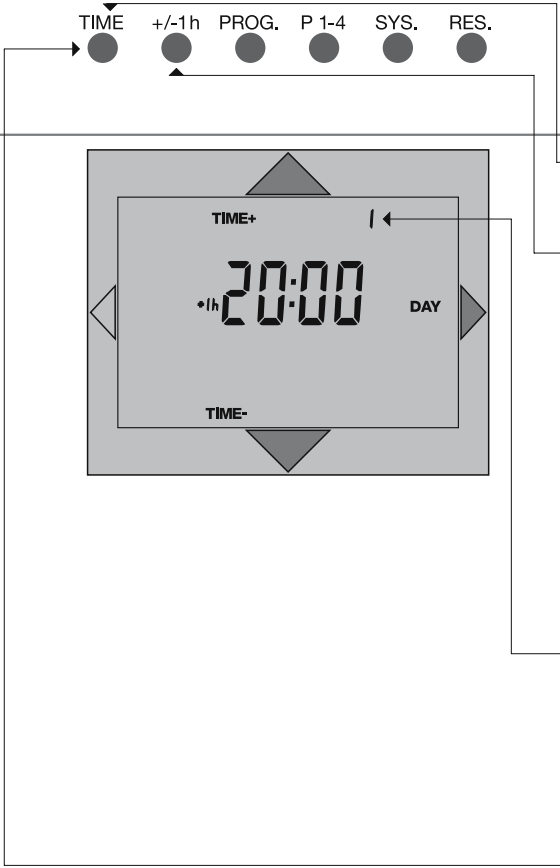
- Tighten the screws



- Lift the famoso 2000 chronostat off the stand
- Remove the retaining strap
- Insert the batteries
  Battery type: LR 6 / AA (two)
  (use only alkaline batteries)
- Replace the retaining strap, inserting the spring-loaded side first
- Replace the chronostat on its stand - it must latch into place.
- Conduct a RESET after fitting the batteries (after fitting for the first time only).


TEMP+
TEMP3
TEMP2
TEMP1
AUTO
22.5°C
TIME
PARTY
HOLI
DAY
0 · 2 · 4 · 6 · 8 ·10·12·14·16·18·20·22·
TEMP-

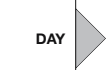
- Appears on the display
- Replace the batteries as soon as possible or the chronostat may cease to work properly.
- Data is stored for approx. 2 minutes when replacing the batteries
- Refer to Page 7
- Note: The unit measures the battery voltage when the heating / cooling system is switched on / off. The battery indicator will not change if the heating / cooling system is not switched on or off.


TIME
+/-1h
PROG.
P 1-4
SYS.
RES.
TIME+
1
20:00
+1h
DAY
TIME-

Press the **TIME** button once
The time appears on the display

When setting for the first time during summer-time, press the **+/-1h** button once
+1h appears on the display

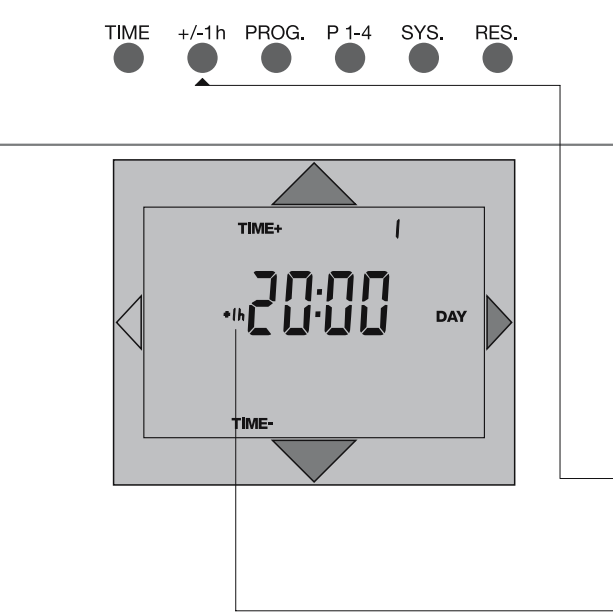
Press the button and set the current time



Press the button and set the day of the week

The days of the week are displayed in the following format:
1=Mo, 2=Tu, 3=We, 4=Th, 5=Fr, 6=Sa, 7=Su

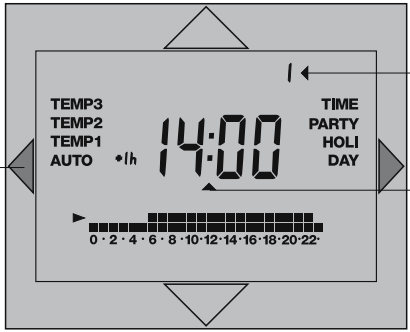
Confirm the entered data:
Press the **TIME** button once
The unit returns to its AUTOmatic programme sequence.


TIME
+/-1h
PROG.
P 1-4
SYS.
RES.
TIME+
1
20:00
DAY
TIME-

Press the **+/-1h** button and set summertime / wintertime

Displayed indicator
(+1h displayed for summertime; no indicator appears on the display during wintertime (normal time)

Please make sure that **+1h** is displayed during summertime.


TEMP3
TEMP2
TEMP1
AUTO
14:00
TIME
PARTY
HOLI
DAY
0 · 2 · 4 · 6 · 8 ·10·12·14·16·18·20·22·

TIME Press the **TIME** button 1x

TIME flashes on the display

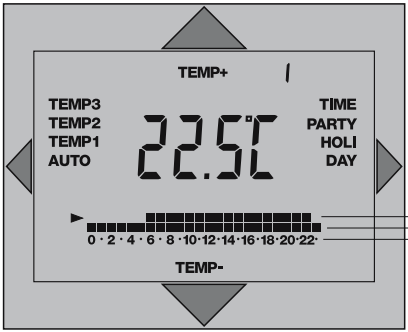
The current time appears on the display

The current day of the week appears on the display

The display returns to its original state automatically if no buttons are pressed for approx. 8 seconds

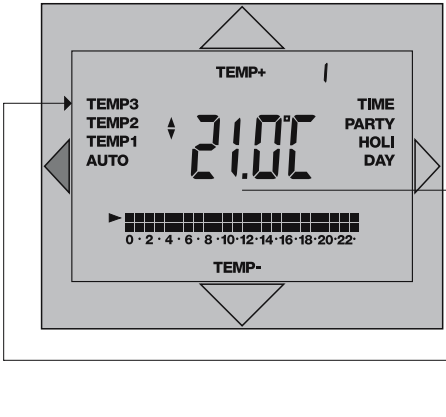
AUTO Press the **AUTO** button
The units returns to its automatic programme sequence

TIME +/-1h PROG. P 1-4 SYS. RES.



Factory setting	Setting range
TEMP 3 21° C	18° C ... 35° C
TEMP 2 17° C	14° C ... 20° C
TEMP 1 5° C	5° C ... 16° C

Note:
The temperature measuring range is between 0°C ... 40°C. If the temperature is outside this range, --:-°C will appear on the display instead of a temperature value.


TEMP+
TEMP3
TEMP2
TEMP1
AUTO
21.0°C
TIME
PARTY
HOLI
DAY
0 · 2 · 4 · 6 · 8 · 10 · 12 · 14 · 16 · 18 · 20 · 22 ·
TEMP-

AUTO Press the **AUTO** button and select a temperature level

TEMP 3 21° C
TEMP 2 17° C
TEMP 1 5° C
(Factory settings)

The display starts flashing

The programmed temperature appears on the display

TEMP+ TEMP- Press the button and alter the temperature

AUTO Press the **AUTO** button -
AUTO = automatic programme sequence

Note:
Program the temperatures so that TEMP 3 is always higher than TEMP 2 and TEMP 2 is always higher than TEMP 1.

Factory programmes P1 - P4
The factory programmes are oriented to the calendar week and have been adapted to suit different ways of life. They can be altered according to specific requirements.

4 user-defined programmes
The 4 factory programmes can be edited to suit your specific requirements.

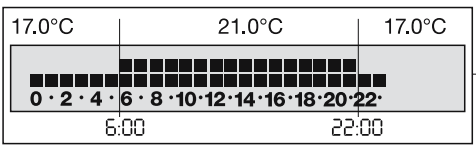
6 operating modes:

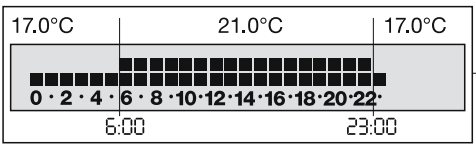
AUTOmatic mode
The chronostat operates in accordance with one of the four factory programmes or the user-defined programme in this mode.

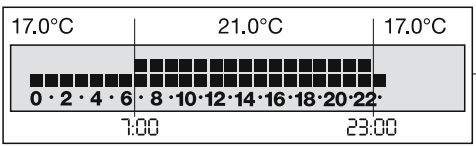
3 continuous temperature modes
A single temperature is assigned to each of the TEMP 3, TEMP 2 and TEMP 1 modes. The programmed temperature is maintained until another mode is selected or the unit is switched off.

PARTY mode
Switches to temperature level 3 (factory setting: 21°C) for a three-hour period.

HOLIDAY mode
This mode remains active for the specified number of days and then returns to the previously selected programme.


17.0°C
21.0°C
17.0°C
0 · 2 · 4 · 6 · 8 ·10·12·14·16·18·20·22·
6:00
22:00


17.0°C
21.0°C
17.0°C
0 · 2 · 4 · 6 · 8 ·10·12·14·16·18·20·22·
6:00
23:00


17.0°C
21.0°C
17.0°C
0 · 2 · 4 · 6 · 8 ·10·12·14·16·18·20·22·
7:00
23:00

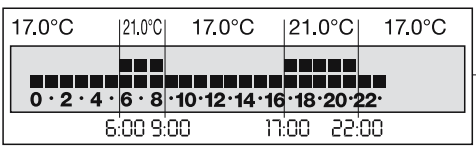
Factory program P1 is a **daytime and evening programme**, i.e. the programme has been designed in such a way that a constant, comfortable temperature prevails during the day and in the evening.

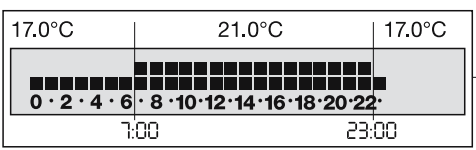
Changing the time and temperature:
Example with factory settings for the temperature levels
TEMP 3 = 21° C
TEMP 2 = 17° C

Monday to Thursday
from 6:00 - 22:00 h TEMP 3
from 22:00 - 6:00 h* TEMP 2
*(the following morning)

Friday
from 6:00 - 23:00 h TEMP 3
from 23:00 - 6:00 h* TEMP 2
*(the following morning)

Saturday and Sunday
from 7:00 - 23:00 h TEMP 3
from 23:00 - 7:00 h* TEMP 2
*(the following morning)


17.0°C
21.0°C
17.0°C
21.0°C
17.0°C
0 · 2 · 4 · 6 · 8 ·10·12·14·16·18·20·22·
6:00 9:00
17:00
22:00

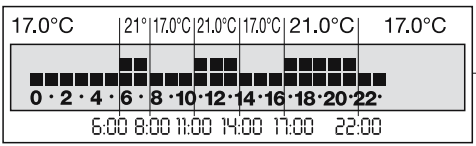

17.0°C
21.0°C
17.0°C
0 · 2 · 4 · 6 · 8 ·10·12·14·16·18·20·22·
7:00
23:00

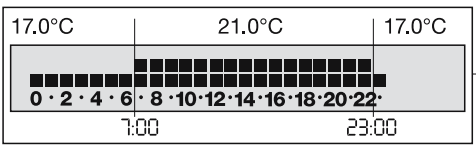
Factory programme P2 is a **full-time working day programme**, i.e. the programme has been designed in such a way that a constant, comfortable temperature prevails at breakfast-time, in the evening and all day at the weekend.

Changing the time and temperature:
Example with factory settings for the temperature levels
TEMP 3 = 21° C
TEMP 2 = 17° C

Monday to Friday
from 6:00 - 9:00 h TEMP 3
from 9:00 - 17:00 h TEMP 2
from 17:00 - 22:00 h TEMP 3
from 22:00 - 6:00 h* TEMP 2
*(the following morning, 7:00 h on Saturday)

Saturday and Sunday
from 7:00 - 23:00 h TEMP 3
from 23:00 - 7:00 h* TEMP 2
*(the following morning, 6:00 h on Monday)


17.0°C
21°
17.0°C
21.0°C
17.0°C
21.0°C
17.0°C
0 · 2 · 4 · 6 · 8 ·10·12·14·16·18·20·22·
6:00 8:00 11:00 14:00 17:00 22:00

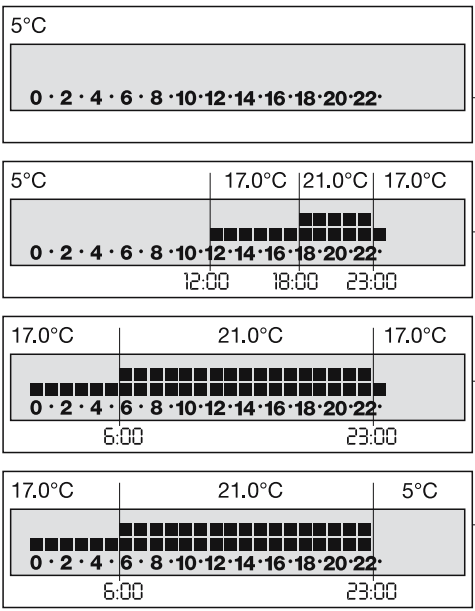

17.0°C
21.0°C
17.0°C
0 · 2 · 4 · 6 · 8 ·10·12·14·16·18·20·22·
7:00
23:00

Factory programme P3 is a **working day programme**, i.e. the programme has been designed in such a way that a constant, comfortable temperature prevails at breakfast-time, at lunchtime, in the evening and all day at the weekend.

Changing the time and temperature:
Example with factory settings for the temperature levels
TEMP 3 = 21° C
TEMP 2 = 17° C

Monday to Friday
from 6:00 - 8:00 h TEMP 3
from 8:00 - 11:00 h TEMP 2
from 11:00 - 14:00 h TEMP 3
from 14:00 - 17:00 h TEMP 2
from 17:00 - 22:00 h TEMP 3
from 22:00 - 6:00 h* TEMP 2
*(the following morning, 7:00 h on Saturday)

Saturday and Sunday
from 7:00 - 23:00 h TEMP 3
from 23:00 - 7:00 h* TEMP 2
*(the following morning, 6:00 h on Monday)


5°C
0 · 2 · 4 · 6 · 8 ·10·12·14·16·18·20·22·
5°C
17.0°C
21.0°C
17.0°C
0 · 2 · 4 · 6 · 8 ·10·12·14·16·18·20·22·
12:00
18:00
23:00
17.0°C
21.0°C
17.0°C
0 · 2 · 4 · 6 · 8 ·10·12·14·16·18·20·22·
6:00
23:00
17.0°C
21.0°C
5°C
0 · 2 · 4 · 6 · 8 ·10·12·14·16·18·20·22·
6:00
23:00

Factory programme P4 is a **weekend house programme**, i.e. the programme has been designed in such a way that a constant, comfortable temperature prevails during the second half of the day on Friday and all day at the weekend.

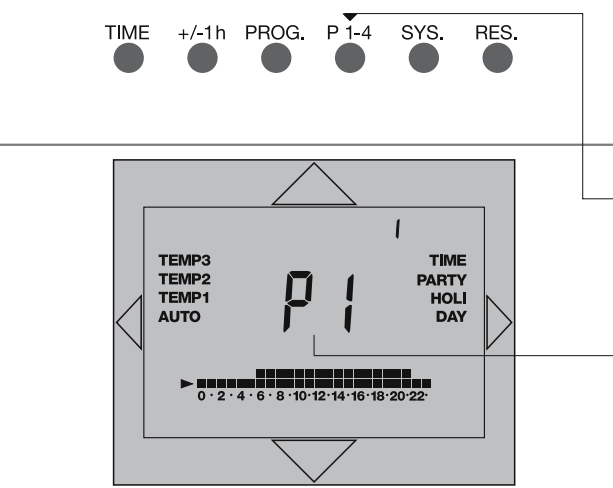
Changing the time and temperature:
Example with factory settings for the temperature levels
TEMP 3 = 21°C
TEMP 2 = 17°C
TEMP 1 = 5°C

Monday to Thursday
TEMP 1 24 hours a day

Friday
from 12:00 - 18:00 h TEMP 2
from 18:00 - 23:00 h TEMP 3
from 23:00 - 6:00 h* TEMP 2
*(the following morning)

Saturday
from 6:00 - 23:00 h TEMP 3
from 23:00 - 6:00 h* TEMP 2
*(Sunday)

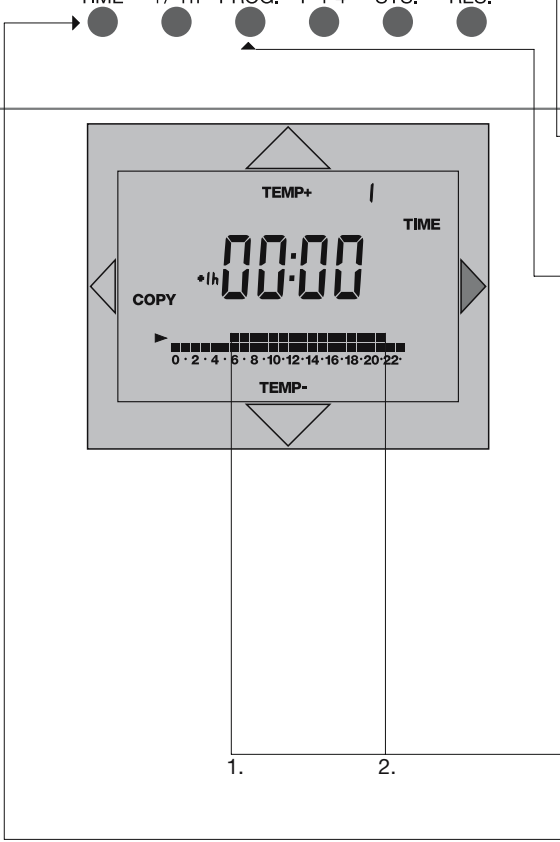
Sunday
from 6:00 - 23:00 h TEMP 3
from 23:00 - 12:00 h* TEMP 1
*(Friday)


TIME
+/-1h
PROG.
P 1-4
SYS.
RES.
TEMP3
TEMP2
TEMP1
AUTO
P1
TIME
PARTY
HOLI
DAY
0 · 2 · 4 · 6 · 8 ·10·12·14·16·18·20·22·

Press the **P 1 - 4** button
Select the factory programme of your choice

The selected factory programme appears on the display

The display returns to its original state automatically if no buttons are pressed for approx. 8 seconds


TIME
+/-1h
PROG.
P 1-4
SYS.
RES.
TEMP+
TIME
COPY
0 · 2 · 4 · 6 · 8 ·10·12·14·16·18·20·22·
TEMP-
1.
2.

The user-defined programme is a modified factory programme. Let us assume that you wish to read or modify factory programme P1, for example.

Press the **P 1 - 4** button
and select factory programme P1

Press the **PROG.** button 1x
1 = Monday appears on the display

TIME

Keep the **TIME** button pressed until the **first time** 6:00 appears

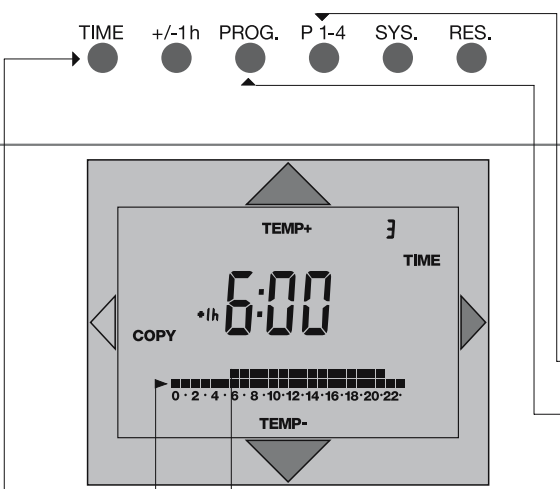
TIME

Keep the **TIME** button pressed until the **second time** 22:00 appears, etc.

Press the **PROG.** button 1x
2 = Tu appears on the display, etc.

Times for temperature changes

To terminate selection / reading:
press the **TIME** button -



Note:
The shortest interval between two changes in temperature must be 1 hour. Up to 8 temperature changes are permitted in any one day. --:-- appears on the display if you attempt to enter more than 8 changes.

Monday to Thursday

Friday

Saturday and Sunday

Example:
Adapt the programme (P1) to suit your requirements in the following manner: you wish to lower the temperature to 17°C for the whole day on Wednesday.

Press the **P1 - 4** button until P1 appears on the display
Press the **PROG.** button 3x
3 = We appears on the display

TIME

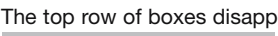
Keep the **TIME** button pressed until the display stops automatically at 6:00 h (temperature change)

The time of the temperature change is displayed

TEMP-

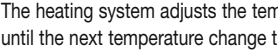
Press the **TEMP**. button 1x

The arrow moves to the bottom row of little boxes = TEMP 2 = 17°C
The top row of boxes disappears.



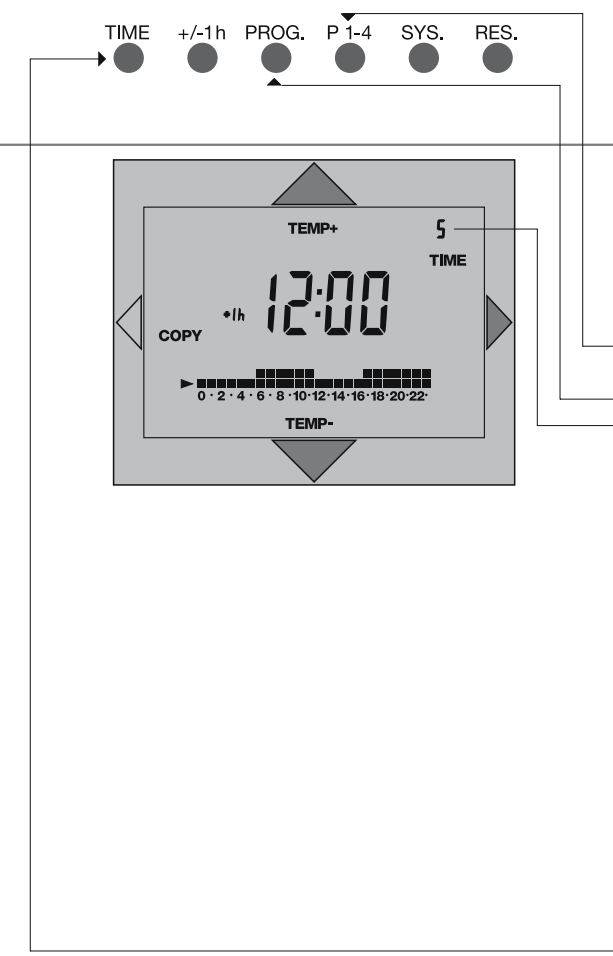
Wednesday

The heating system adjusts the temperature to 17°C until the next temperature change the following morning.



Thursday

To terminate your inputs:
press the TIME button


TIME
+/-1h
PROG.
P 1-4
SYS.
RES.
TEMP+
TIME
COPY
•1h
12:00
0 · 2 · 4 · 6 · 8 ·10·12·14·16·18·20·22·
TEMP-

Monday to Thursday

Friday

Saturday and Sunday

Example:
Adapt the programme (P1) to suit your requirements in the following manner: you wish to lower the temperature to 17 °C between 12:00 h and 17:00 h on Friday.

Press the **P1 - 4** button until P1 appears on the display

Press the **PROG.** button 5x
5 = We appears on the display

TIME Keep the **TIME** button pressed until the time 12:00 h appears on the display

TEMP- Press the **TEMP.** button 1x
The arrow moves to the bottom row of little boxes = TEMP 2 = 17 °C
Part of the top row of boxes disappears.

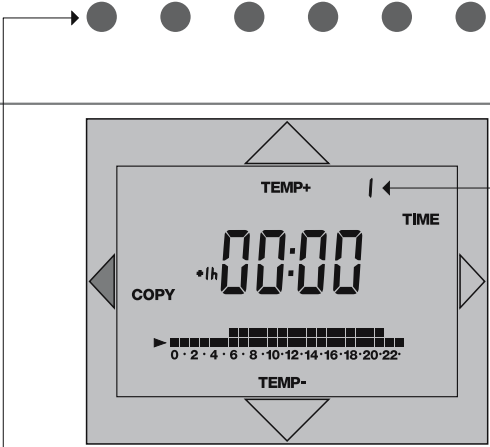
TIME Keep the **TIME** button pressed until 17:00 h appears on the display

TEMP+ Press the **TEMP.** button 1x
The arrow moves to the top row of little boxes = TEMP 3 = 21 °C

TIME Keep the **TIME** button pressed until 23:00 h appears on the display

TEMP- Press the **TEMP.** button 1x
The arrow moves to the bottom row of little boxes = TEMP 2 = 17 °C

To terminate your inputs:
press the **TIME** button 1x


TIME
+/-1h
PROG.
P 1-4
SYS.
RES.
TEMP+
TIME
COPY
00:00
0 · 2 · 4 · 6 · 8 ·10·12·14·16·18·20·22·
TEMP-

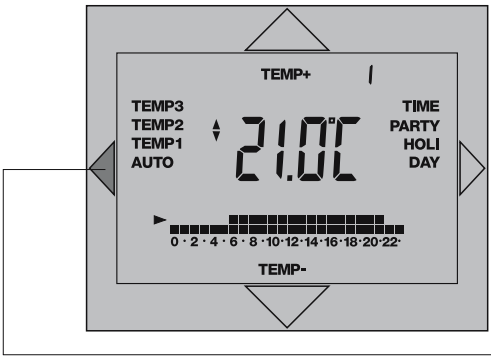
Example:
You have programmed day 1
If you wish to adopt the same daily programme for subsequent days, press the

COPY button
COPY day 1 to day 2 - COPY to day 3, etc.

The selected day appears on the display

Note:
Bear in mind that the last temperature programmed for the copied day continues to apply until a different temperature is programmed on one of the following days. Always check the entered programme day by day, as described in Page 20.

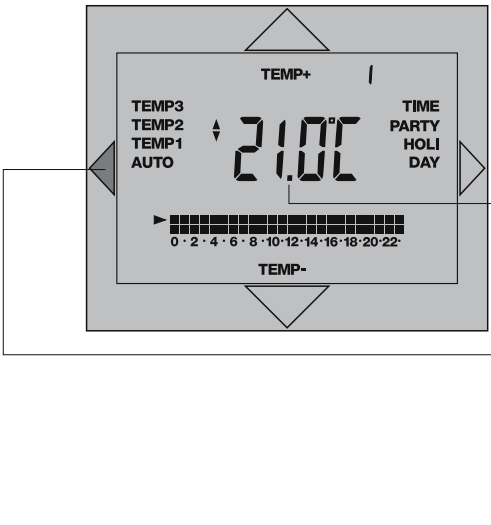
Press the **TIME** button
The unit returns to its automatic programme sequence.


TEMP+
TEMP3
TEMP2
TEMP1
AUTO
21.0°C
TIME
PARTY
HOLI
DAY
0 · 2 · 4 · 6 · 8 ·10·12·14·16·18·20·22·
TEMP-

The chronostat operates in accordance with one of the four factory programmes or the user-defined program in this mode.

AUTO Press the **AUTO** button

Display Selected mode
AUTO flashes on the display


TEMP+
TEMP3
TEMP2
TEMP1
AUTO
21.0°C
TIME
PARTY
HOLI
DAY
0 · 2 · 4 · 6 · 8 ·10·12·14·16·18·20·22·
TEMP-

6.8 TEMP 3 mode

6.9 TEMP 2 mode

6.10 TEMP 1 mode

A single temperature is assigned to each of the continuous temperature modes. The programmed temperature is maintained until another mode is selected.

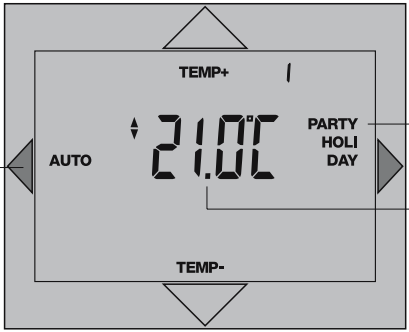
AUTO Press the **AUTO** button and select a temperature level
TEMP3 21 °C
TEMP2 17 °C
TEMP1 5 °C
(Factory settings)

Display
Selected mode
Example:
TEMP 3 flashes on the display

Display
Shows the set temperature
Example:
21.0 °C

The current room temperature is displayed after approx. 8 seconds

If you wish to return to the automatic programme sequence:
AUTO press the **AUTO** button until **AUTO** starts flashing on the display


TEMP+
AUTO
21.0°C
PARTY
HOLI
DAY
TEMP-

Switches to temperature level 3 (factory setting: 21 °C) for a three-hour period.

PARTY

Press the **PARTY** button **2x**

PARTY starts flashing on the display

The programmed room temperature appears on the display

TEMP+
TEMP-

Press the ... button and enter the desired temperature

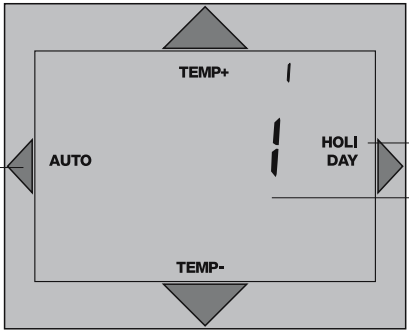
The current room temperature is displayed after approx. 8 seconds

The unit returns to the automatic programme sequence after 3 hours in PARTY mode

If you wish to terminate PARTY mode prematurely:

AUTO press the **AUTO** button

The unit returns to the automatic programme sequence


TEMP+
AUTO
HOLI
DAY
TEMP-

This mode remains active for the specified number of days and then returns to the previously selected programme.

HOLI DAY

Press the **HOLIDAY** button **3x**

HOLI DAY starts flashing on the display

The first day of the holiday period appears on the display

HOLI DAY

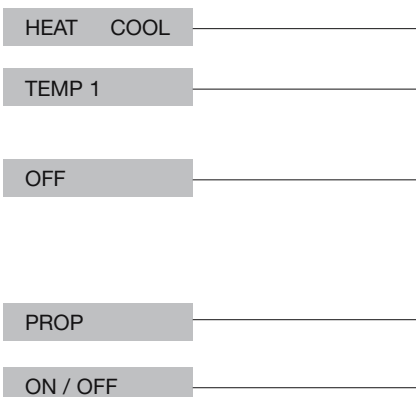
Example:
Press the **HOLIDAY** button **1x**
= **2 days holiday**

TEMP+ TEMP-

Press the ... button and select the temperature (not possible when OFF, refer to Page 28)

Holiday mode continues running for the specified number of days

To terminate HOLIDAY mode prematurely:
AUTO press the A**UTO** button
The unit returns to the automatic programme sequence


HEAT COOL
TEMP 1
OFF
PROP
ON / OFF

The necessary settings must be specified on site when the system is put into operation for the first time.

You can use the system settings to adapt the chronostat to suit your specific requirements.

Refer to Page 29 for information concerning inputs (Parameter settings)

Factory settings

Heating or cooling mode

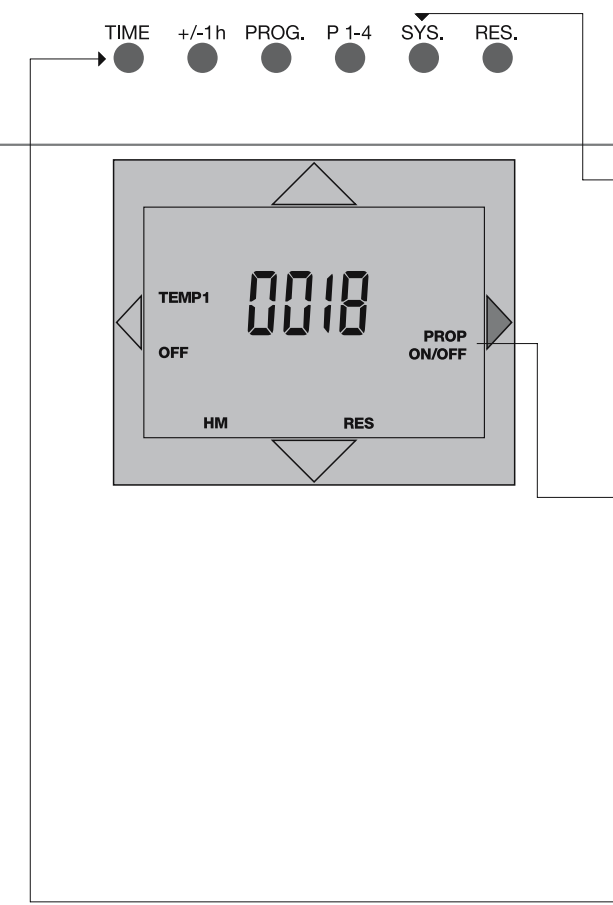
The set value for temperature 1 is active (factory setting 5 °C provides protection against freezing)

The system is switched off if TEMP 1 is active in AUTOmatic or continuous temperature mode. The same applies to HOLIDAY mode.

There is no protection against freezing.

Proportional control response

Simple control response
(similar to that of a bimetal controller)


TIME
+/-1h
PROG.
P 1-4
SYS.
RES.
TEMP1
0018
OFF
PROP
ON/OFF
HM
RES

Press the **SYS**. button 1x

The active system settings start flashing.
The display returns to its original state automatically if no buttons are pressed for approx. 8 seconds

PROP

Press the **PROP** button and change the settings
Example: switchover between proportional and simple control response

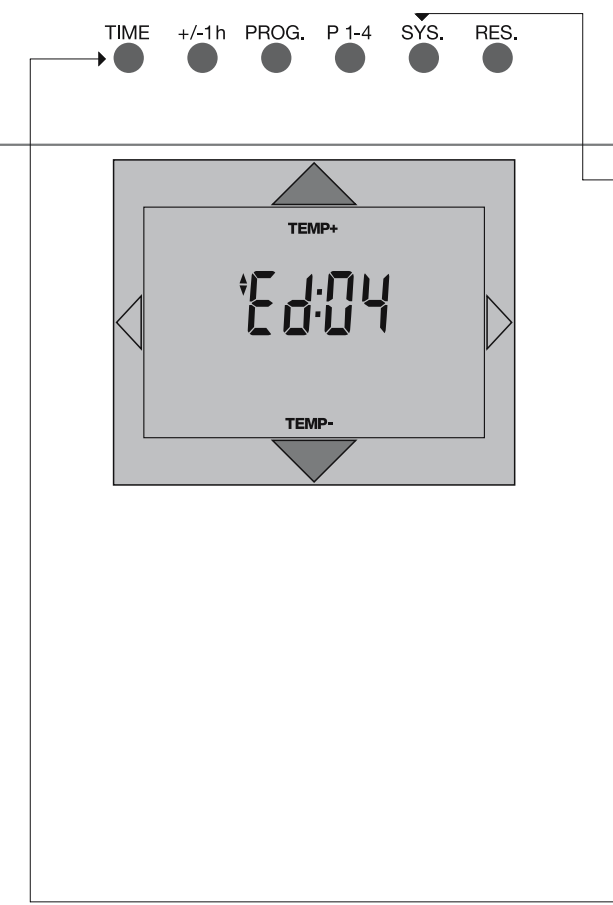
Display **PROP**
Display **ON/OFF**

To terminate programming:
press the **TIME** button 1x

Recommended settings	Setting
Direct electric heating	1 or 2
Supplementary electric bathroom radiator	2 or 3
Single-room control system with electrically operated radiator valves (hot-water heating) Small to medium-sized rooms	3 or 4
Single-room control system with electrically operated radiator valves (hot-water heating) Medium to large rooms	4 or 5
Wall-mounted gas-fired boiler for single-storey heating systems	4 or 5
Free-standing gas-fired boiler or oil-fired boiler for larger living modules	4, 5 or 6

Setting	1	2	3	4	5	6
Cycle time 1 x ON - 1 x OFF in minutes	4	8,5	13	17	21	25,5

- The heating cycle setting is used for adaptation to the controlled system. This is affected by the following:
  - room size
  - type of heating (convector heaters, single-storey heating systems)
  - installation location
  - temperature controller/thermostat
- The setting range extends from 1 to 6. If the temperature in a room changes too dramatically, e.g. as a result of ventilating, then the cycle may be terminated prematurely or the system may be switched on again.
- If the difference in temperature within a room is too great, the system does not switch ON and OFF sufficiently frequently, i.e. a lower CDF value must be selected.
- If the system switches too often, a correspondingly higher CDF value must be selected.
- **Factory setting: CDF = 4**
  (4x 4 min. 15 s = 17 min.)


TIME
+/-1h
PROG.
P 1-4
SYS.
RES.
TEMP+
Ed:04
TEMP-

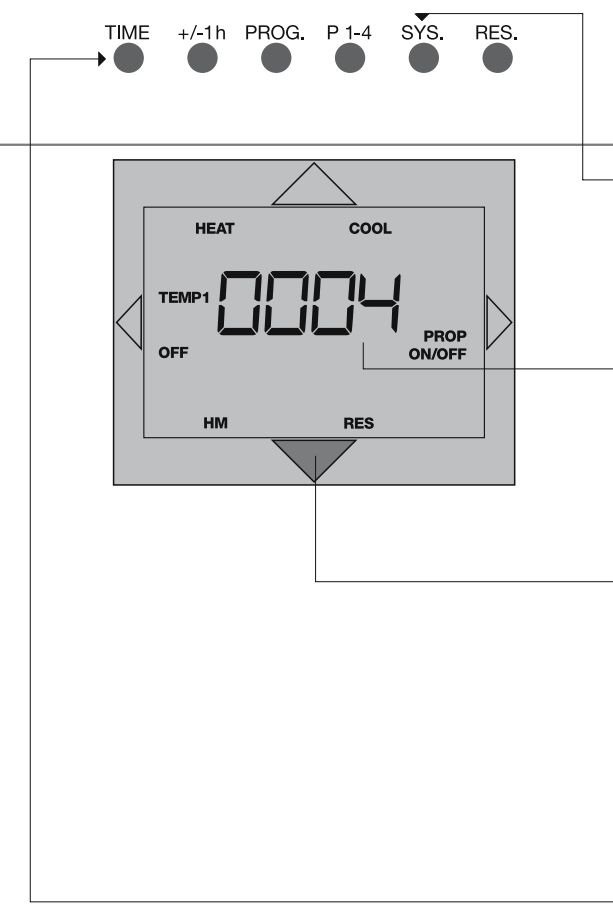
Press the **SYS.** button 2x

The display returns to its original state automatically if no buttons are pressed for approx. 8 seconds

Press the ... button and change the settings

Setting	1	2	3	4	5	6
Cycle time 1 x ON - 1 x OFF in minutes	4	8,5	13	17	21	25,5

To terminate programming:
press the **TIME** button


TIME
+/-1h
PROG.
P 1-4
SYS.
RES.
HEAT
COOL
TEMP1
0004
OFF
PROP
ON/OFF
HM
RES

Press the **SYS.** button

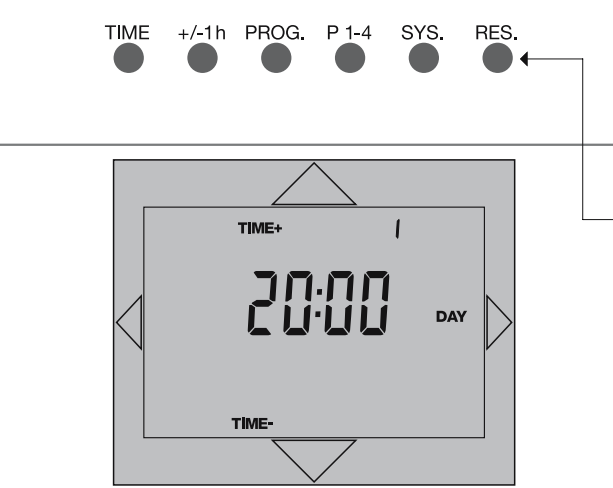
The display returns to its original state automatically if no buttons are pressed for approx. 8 seconds

The display shows the full hours during which the heating / cooling system was switched on.

RES

Press the **RES** button to reset to 0000

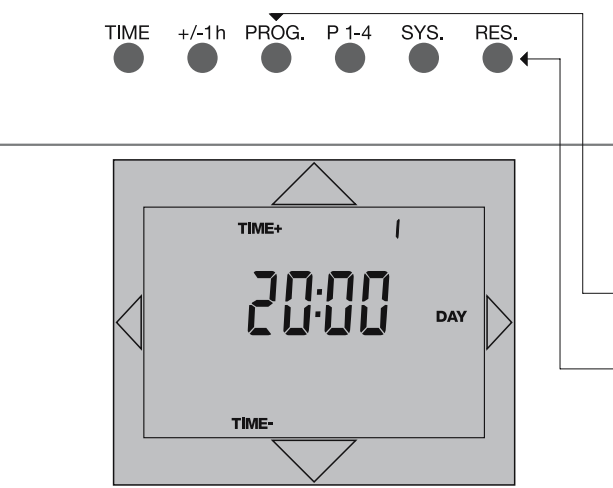
To terminate programming:
press the **TIME** button


TIME
+/-1h
PROG.
P 1-4
SYS.
RES.
TIME+
1
20:00
DAY
TIME-

Press the **RES.** button

The chronostat reverts to a defined operating state and resets the current time to Monday 20:00 h.

Refer to Page 9 for information concerning setting the time / date


TIME
+/-1h
PROG.
P 1-4
SYS.
RES.
TIME+
1
20:00
DAY
TIME-

This function recalls factory programmes P1 - 4 and the factory settings for the temperature levels and resets the current time to Monday 20:00 h.
It also erases all user-defined settings.

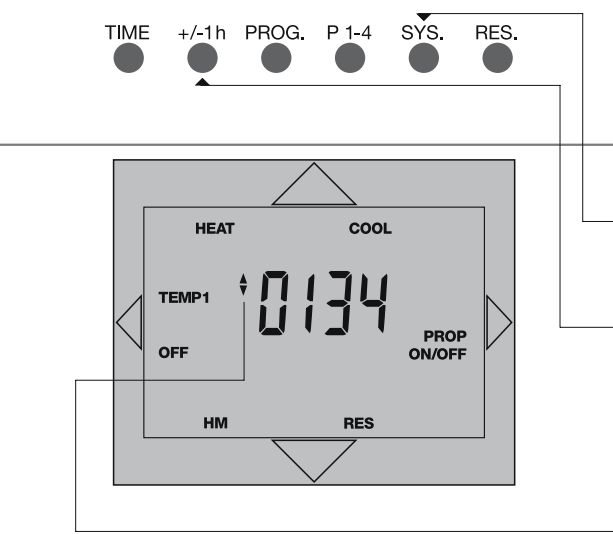
Press the **PROG.** button and keep it pressed

Press the **RES.** button

Release the **RES.** button

Release the **PROG.** press down key until 20:00 h appears in the display

- Refer to Page 9 for information concerning setting the time / date
- Refer to Page 15 for information concerning selecting factory programmes or
- Refer to Page 21 for information concerning entering a user-defined programme


TIME
+/-1h
PROG.
P 1-4
SYS.
RES.
HEAT
COOL
TEMP1
0134
OFF
PROP
ON/OFF
HM
RES

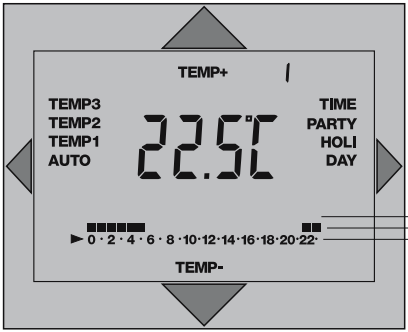
The electronic interlock prevents unintentional or unauthorized modifications to the programmes. The temperature can be changed slightly by +/- 3 degrees. It is also possible to interrogate the current time.

Press the **SYS.** button 1x

Press the **+/-1h** button 1x

Enable - repeat the procedure

The display indicates interlock on/off


TEMP+
TEMP3
TEMP2
TEMP1
AUTO
22.5°C
TIME
PARTY
HOLI
DAY
0 · 2 · 4 · 6 · 8 ·10·12·14·16·18·20·22·
TEMP-

If the unit is used in cooling mode, the temperature ranges are subject to the following limits:

Cooling mode

Factory setting		Setting range
TEMP 3	32° C	27° C ... 35° C
TEMP 2	27° C	24° C ... 29° C
TEMP 1	23° C	15° C ... 26° C

Note:
In cooling mode, the air-conditioning system is switched on the least number of times with TEMP 3 (highest temperature). The air conditioner cools to the greatest extent with TEMP 1. This factor has been taken into consideration in factory programs P1 - 4 by swapping TEMP 3 and TEMP 1 over compared with heating mode. OFF cannot be set in cooling mode (refer to Page 28)

Dimensions H x W x D (mm)	134 x 81 x 33
Weight	approx. 200 g
Operating voltage	battery, type 2x LR 6 / AA
Switching capacity:	
- resistive load	5 A / 250 V~
- inductive load cos φ 0.6	1 A / 250 V~
Switching output	floating
Switching contact	1 changeover contact
Ambient temperature	- 5°C to + 45 °C
Class of protection	II
Accuracy	typ 2.5 s / day at + 25 °C
Reserve power	2 min. to replace the batteries
Battery life	1 year
Shortest switching period:	
- daily program	1 h
- weekly program	1 h
Programmable every	15 min.
Switching preselection	yes

Switching state display and operating modes:

Heating mode	Flame symbol
Cooling mode	Fan symbol
Automatic mode	AUTO
Continuous mode	TEMP 1, TEMP 2 or TEMP 3
Party mode	PARTY
Holiday mode	HOLIDAY
Type of installation	Surface-mounted
Type of connection	Screw-type terminals, each 2.5mm^2
Temperature Heating control range	+ 5°C to + 35°C
Temperature Cooling control range	+ 15°C to + 35°C
Protection against freezing	TEMP 1 setting (factory setting: 5°C)
Differential temperature gap	+/- 0.25 at 0.4 K *
Feedback	Electronic
Degree of protection	IP 20

* Greater fluctuations are possible as a result of the heating system and the heated room.

Problem:

1. Operator control restricted at low voltage, i.e. whenever the battery symbol appears on the display. It is no longer possible to activate factory programs. Data entered during programming is not stored.

2. It is not possible to edit data

3. It is not possible to set the value for the temperature level

4. The heating system takes too long to reach the set temperature

5. The heating system switches too frequently

6. The wrong key has been pressed or incorrect values have been entered during programming.

Remedy:

1. Replace the battery Page 7

2. The interlock is active Page 35

3. Select values within the setting range Page 12

4. Check that the correct CDF value has been entered Page 31

5. Check that the correct CDF value has been entered Page 31

6. Cancel the operation:
   Press the TIME button or the AUTO button on the display to start again

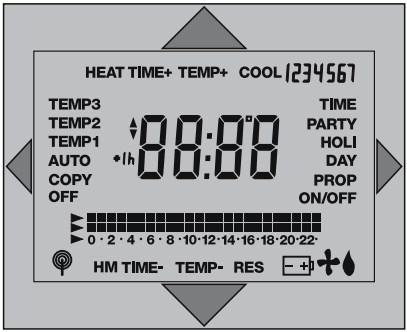
10. Cleaning and maintenance

Use a dry cloth to clean the unit.
Never use any caustic cleaning agents.

11. Service addresses

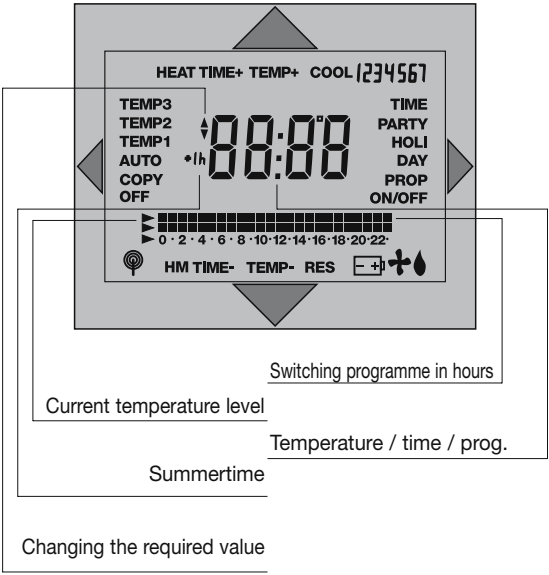
Grässlin GmbH & Co. KG
FEINWERKTECHNIK
Postfach 1232
D-78104 St. Georgen/Schw.
Telephone ++49(0)7724/933-0
Telefax ++49(0)7724/933-240

TIME +/-1h PROG. P 1-4 SYS. RES.

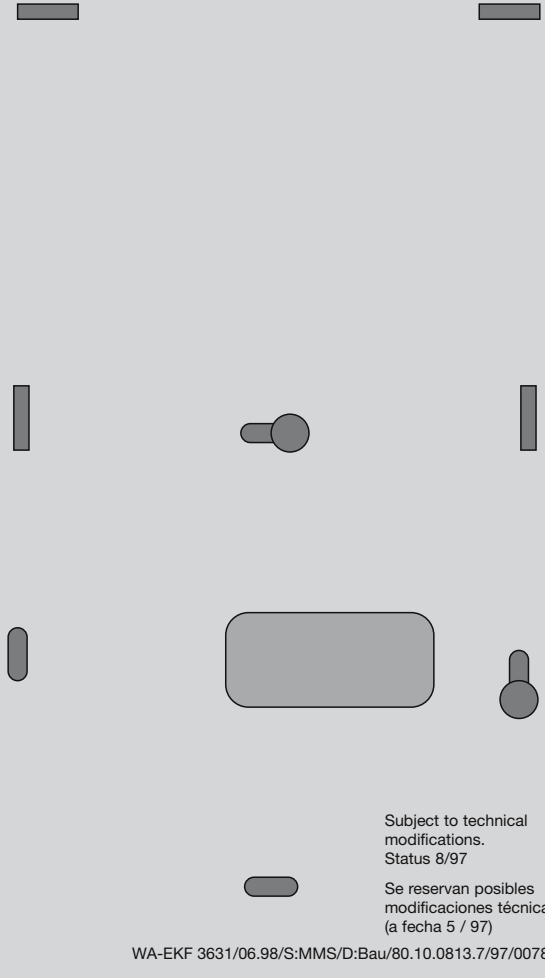


TIME 	Setting the current time Confirming inputs
+/- 1h 	Setting and changing over between summertime and wintertime
PROG. 	Recalling, reading and editing the programme
P 1-4 	Selecting the factory programmes
SYS. 	System settings, Page 28
RES. 	Reset to a defined operating state, time Mo 20:00 h
	Setting the temperature / time Selecting temperature level / system setting
	Setting the temperature / time Selecting temperature level Resetting the elapsed-hour meter
	Selecting the operating mode: TEMP 1, TEMP 2, TEMP 3, AUTO, COPY System settings
	Interrogating the current time Selecting the PARTY and HOLIDAY modes System settings Selecting the times for temperature changes

TIME +/-1h PROG. P 1-4 SYS. RES.



HEAT	Heating mode
COOL	Cooling mode
TIME +	Set the assignment of the TIME button
TEMP+	Set the assignment of the TEMP button
1234567	Indicates the current day of the week
TEMP 3	TEMP 3 mode selected
TEMP 2	TEMP 2 mode selected
TEMP 1	TEMP 1 mode selected
AUTO	Factory programme or user-defined programme running
COPY	Enter the assignment of the COPY button - user-defined programme, Page 23
OFF	System setting, Page 28
TIME	Current time
PARTY	PARTY mode, Page 26
HOLIDAY	HOLIDAY mode, Page 27
PROP	System setting, Page 28
ON/ OFF	System setting, Page 28
HM	Elapsed-hours indicator, Page 32
TIME -	Set the assignment of the TIME button
TEMP-	Set the assignment of the TEMP button
RES	RESET, Page 33
	Battery status / battery replacement, Page 7
	Cooling mode on/off
	Heating mode on/off



Subject to technical modifications.
Status 8/97

Se reservan posibles modificaciones técnicas (a fecha 5 / 97)

WA-EKF 3631/06.98/S:MMS/D:Bau/80.10.0813.7/97/00782